

FTBx-2150

OPTICAL LIGHT SOURCE



Exceptional selection of single- or multi-wavelength, multimode light-emitting diodes (LEDs) and singlemode distributed feedback (DFB) lasers, perfect for IL and ORL testing, as well as FTTx component verification.

SPEC SHEET

KEY FEATURES

Single-, dual- or multi-wavelength LEDs or IL/ORL optimized DFB lasers

Individual output port for DFB lasers

Combines two sources on a single output for LED

Continuous-wave or modulated output power

Variable output power over a 9 dB range for singlemode fiber

RELATED PRODUCTS



Platform
LTB-8



Optical switch
FTBx-9150



Power meter
FTBx-1750



Variable attenuator
FTBx-3500



HIGH-PERFORMANCE OPTICAL LIGHT SOURCES

Advanced testing environments require a high-performance, stable light source to guarantee accurate and reliable test results. Designed for optimal stability, the modular FTBx-2150 offers this and more. Steady drive circuitry maximizes optical output power and maintains excellent stability, while precision optical components ensure low-loss, narrow-beam, truly efficient output coupling.

The FTBx-2150 optical light source features variable output power over range of 9 dB for singlemode with power level setting resolution of 0.1 dB. FTBx-2150 module must be inserted inside an LTB-8 platform to operate.

APPLICATIONS

- Insertion loss measurements
- Return loss measurements
- Spectral attenuation measurements in fibers
- FTTx component characterization
- Splicing test stations
- Stability measurements
- Polarization-dependent loss measurements

ENCIRCLED FLUX COMPLIANCE

Using the FTBx-2150-0012C-1 (50 μm output) with EXFO's 50 μm and 62.5 μm output mode conditioner will guarantee Encircled-Flux compliance as per IEC-61280-4-1 Ed.2.

Compatible part numbers:

- FTBx-2150-0012C-1-EI-EUI-89 with MC-FC-50-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-50-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-LC-50-N
- FTBx-2150-0012C-1-EI-EUI-89 with MC-FC-62-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-62-N
- FTBx-2150-0012C-1-EI-EUI-91 with MC-SC-LC-62-N

ORL MEASUREMENTS

Since the FTBx-2150 singlemode light sources have been designed using DFB lasers which have narrow spectral width, ORL optimized modulation needs to be used when performing ORL measurements.

SPECIFICATIONS

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		0023B-2	0234B-3	0236B-3	2346B-4
IL/ORL optimized DFBs	Wavelength (nm)	1310 ± 6.5 1550 ± 6.5	1310 ± 6.5 1550 ± 6.5 1625 ± 10	1310 ± 6.5 1490 ± 6.5 1550 ± 6.5	1310 ± 6.5 1490 ± 6.5 1550 ± 6.5 1625 ± 10
	Spectral width (nm)	< 1	< 1	< 1	< 1
	Output power (dBm) ^b	≥ 1	≥ 1	≥ 1	≥ 1
	Stability (dB) ^{b, c} 15 minutes	±0.07	±0.07	±0.07	±0.07
	Attenuation range (dB)	> 9	> 9	> 9	> 9
	Modulation	None, 270 Hz, 330 Hz, 1 kHz, 2 kHz, ORL optimized			
LED light sources		0012C-1			
	Wavelength (nm)	850 ± 25 1300 -20/+30			
	Spectral width (nm)	850 nm 30 to 60 1300 nm 100 to 140			
	Output power (dBm) ^b	≥ -25.0			
	Stability (dB) ^{b, c} 15 minutes	±0.06			
	Modulation	None, 270 Hz, 330 Hz, 1 kHz, 2 kHz			
	Launching conditions ^d	Controlled launch condition to be typically within IEC 61280-4-1 Ed.2 Encircled-Flux template limits			

GENERAL SPECIFICATIONS

Size (H x W x D)	25 mm x 159 mm x 175 mm (1 in x 6 1/4 in x 6 7/8 in)	
Weight	0.35 kg (0.77 lb)	
Temperature	Operating	0 °C to 40 °C (32 °F to 104 °F)
	Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0 % to 80 % non-condensing	
LTB-8 operation	Windows 10	
Instrument drivers	IVI Drivers, LabVIEW™ drivers and SCPI commands	
Remote control (automation)	With LTB-8: GPIB (IEEE-488.1, IEEE-488.2), Ethernet and RS-232	

a. Guaranteed unless otherwise specified. Specifications valid at 23 °C ± 1 °C at maximum power after 30-minute warm-up period with a FC/APC connector (except for multimode sources, for which a PC connector is used).

b. Only when source modulation is set to none (CW).

c. Stability is expressed as ± half the difference between maximum and minimum values measured during the period.

d. At output connector for 850 nm.

e. For the FTBx-2150-0012C-1 model, storage temperature is -30 °C to 70 °C (-22 °F to 158 °F).

LASER SAFETY



ACCESSORIES

MC-FC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm FC connector at both ends of mode conditioner
MC-FC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm FC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-FC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm FC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at both ends of mode conditioner
MC-SC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-LC-50-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner
MC-SC-LC-50-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-LC-50-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 50/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-FC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm FC connector at both ends of mode conditioner
MC-FC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm FC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-FC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm FC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at both ends of mode conditioner
MC-SC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at both ends of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at both ends of mode conditioner Certificate of conformance and test report, attached to ModCon serial number
MC-SC-LC-62-N	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner
MC-SC-LC-62-N-CERT	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance, attached to ModCon serial number
MC-SC-LC-62-N-TEST	Condition output of FTBx/FTB-2150-0012C-1 to be EF compliant with fiber diameter of 62.5/125 μm SC connector at input of mode conditioner & LC connector at output of mode conditioner Certificate of conformance and test report, attached to ModCon serial number

ORDERING INFORMATION

FTBx-2150-XX-XX

Model

- 0012C-1 = Single output LED source, 850/1300 nm, 50/125 μ m fiber type, multimode model
- 0023B-2 = Dual output IL/ORL optimized DFB, 1310/1550 nm, 9/125 μ m fiber type, one wavelength per output
- 0234B-3 = Triple output IL/ORL optimized DFB, 1310/1550/1625 nm, 9/125 μ m fiber type, one wavelength per output
- 0236B-3 = Triple output IL/ORL optimized DFB, 1310/1490/1550 nm, 9/125 μ m fiber type, one wavelength per output
- 2346B-4 = Quad output IL/ORL optimized DFB, 1310/1490/1550/1625 nm, 9/125 μ m fiber type, one wavelength per output

Connector

- EI-EUI-28 = UPC/DIN 47256
- EI-EUI-89 = UPC/FC narrow key
- EI-EUI-90 = UPC/ST
- EI-EUI-91 = UPC/SC
- EI-EUI-95 = UPC/E-2000
- EI-EUI-98 = UPC/LC
- EA-EUI-28 = APC/DIN 47256^a
- EA-EUI-89 = APC/FC narrow key^a
- EA-EUI-91 = APC/SC^a
- EA-EUI-95 = APC/E-2000^a
- EA-EUI-98 = APC/LC^a

Other wavelengths and configurations may be available upon request. Please call factory.

Example: FTBx-2150-0023B-2-EI-EUI-89

a. Available for singlemode models only.

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